

REMARKS

In the Office Action of September 26, 2003 in the above-identified application, Claims 6, 7, 9, 11, 12 and 17 - 20 were rejected. Claims 13 - 16 were allowed. In response, Claims 9, 11 and 17 are amended. Reexamination and reconsideration are respectfully requested in view of the following remarks.

Objection of Claims 9, 11 and 17

Claims 9, 11 and 17 were objected to because the claims do not recite "a junction" before reciting "the junction". In response, Claims 9, 11 and 17 are amended to recite "a junction" and to clarify that the junction is between the rigid and the flexible riser.

Rejection of Claims 7, 9, 11, 12, 17, 19 and 20 under 35 U.S.C. §103(a) over

Remery in view of Brown

Claims 7, 9, 11, 12, 17, 19 and 20 were rejected under 35 U.S.C. §103(a) over Remery (U.S. Patent No. 4,279,543) in view of Brown (U.S. Patent No. 5,505,560). The Examiner alleged that Remery discloses a flexible riser part seen as a flexible tube connected to a point below the surface and a rigid riser part seen as pipe connected to the flexible riser part and to the floating support. The Examiner further alleges that the pipe appears to have a length equal to half the water depth. The Examiner acknowledges that Remery fails to disclose a catenary anchor system applied to the rigid riser part in the vicinity of the junction and/or in the vicinity of the connector and comprising one or more tendons anchored to a sea bottom. The Examiner alleges that Brown teaches a fluid transfer system for an offshore moored floating unit, wherein at the junction of the upper portion and the lower catenary lies a subsurface buoy connected with a line to a clump weight to the seabed, and that Brown states that the

use of the clump with the tether or line connected thereto keeps the buoyancy body in position. The Examiner takes the position that it would have been obvious to modify the pipe of Remery to include a catenary anchor system applied to the rigid riser part in the vicinity of the junction or connector between the flexible riser part and rigid riser part and comprising two or more tendons anchored to the sea bottom. The Examiner acknowledges that Remery does not teach a pipe connected to a source of fluid to be injected and tube connected to a point where the fluid is injected, instead disclosing that the device conveys a medium from a fixed position on the bottom below the water surface to an anchored buoy floating on the water. The Examiner alleges that it would have been obvious to reverse the direction of the medium flow to be from the buoy at the water surface to the fixed position on the bottom. Regarding Claim 12, the Examiner alleges that the Remery discloses a buoyant body to provide addition tension in the tube. Regarding Claims 7 and 19, the Examiner alleged that a holding means in Remery can be viewed as joint fastened to the buoy.

This rejection is respectfully traversed. Remery relates to a device comprising a buoy, a pipe fastened to the buoy and a flexible tube connected to a means provided in a fixed position on the bottom. As acknowledged by the Examiner, the lower end of the pipe 3 is not anchored by a catenary anchor system. Brown relates to a flexible fluid line having an upper catenary section and a lower catenary section. The fluid line is connected to a subsurface buoy that is connected by a line to the seabed. It is respectfully submitted that there is no motivation to combine the features of Brown with the device of Remery and that the combination proposed by the Examiner is merely hindsight reconstruction based on applicant's teaching. Moreover, the use of a fixed anchoring in the device of Remery would defeat the purpose of the device of Remery, which is stated in Column 1, lines 22 - 23 of the document as being to avoid that the "tube may be bent and/or twisted and be loaded with an additional tractive force."

Anchoring the lower end of the rigid part to the sea bed would not be compatible with this aim, since an anchoring means would create stresses by limiting the moving of the lower end of the rigid part. Moreover, the combination of Remery and Brown would not teach where a catenary anchor system must hold the pipe, and a person skilled in the art would not be able to determine whether the catenary anchor system must hold the flexible riser part, the rigid riser part or the junction between the flexible part and the rigid riser part.

Accordingly, it is respectfully submitted that Claims 7, 9, 11, 12, 17, 19 and 20 would not have been obvious over Remery and Brown, alone or in combination.

Rejection of Claims 6 and 18 under 35 U.S.C. §103(a) over Remery and further in view of Willis

Claims 6 and 18 were rejected under 35 U.S.C. §103(a) over Remery and further in view of Willis (EPO 0467635). The Examiner alleges that Remery discloses the limitations of the claimed invention except for heat insulation means placed on at least the rigid part and/or flexible part. The Examiner alleges that Willis teaches thermally insulating compositions and a method of insulating pipeline bundles and pipeline riser caissons. The Examiner alleges that it would have been obvious to modify the rigid or flexible part of Remery to have heat insulation.

This rejection is respectfully traversed. As discussed above, Remery does not disclose or suggest a catenary anchor system as defined by the present claims. Willis does not supply this missing feature. Accordingly, it is respectfully submitted that Claims 6 and 18 would not have been obvious over Remery alone, or in combination with Willis. (As discussed above, even if the Brown reference were applied against the claims, the rejection would not stand because there is no motivation for combining the teachings of Remery and Brown.)

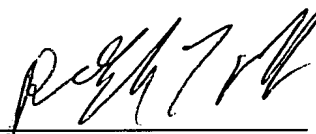
C nclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that Claims 6, 7, 9, 11, 12 and 17 - 20 are allowable, along with allowed Claims 13 - 16. Favorable reconsideration is respectfully requested.

Should the Examiner believe that anything further is necessary to place this application in condition for allowance, the Examiner is requested to contact applicants' undersigned attorney at the telephone number listed below.

Kindly charge any additional fees due, or credit overpayment of fees, to Deposit Account No. 01-2135 (Case No. 612.37981CX1).

Respectfully submitted,
ANTONELLI, TERRY, STOUT & KRAUS

A handwritten signature in black ink, appearing to read 'R. Webb', is written over a horizontal line.

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